



A Few Green Points

Point Reyes National Seashore Monthly Sustainability Newsletter

February 2012, Issue 7

In the LEED: New Hostel Building Open for Business

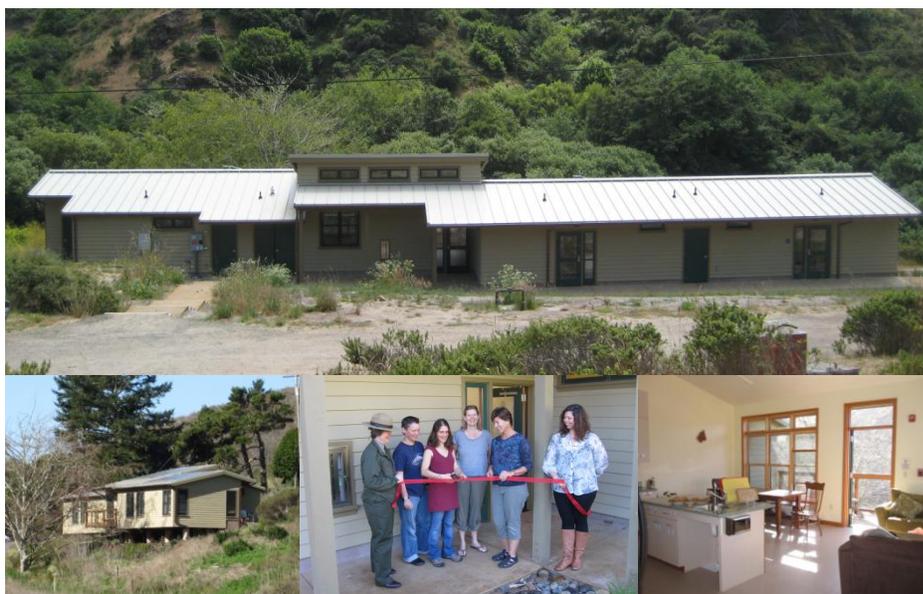
Point Reyes National Seashore and the Golden Gate Council of Hostelling International USA celebrated the grand opening of a newly constructed, environmentally sensitive facility at the Point Reyes Hostel near Limantour Beach. This facility, built to LEED (Leadership in Energy and Environmental Design) standards, is expected to be the first LEED certified hostel building in the United States.

The National Park Service secured funding for the project through the American Recovery and Reinvestment Act (ARRA) with additional funding from the California State Coastal Conservancy.

“We are very proud of this project,” stated Superintendent Cicely Muldoon, “With our partners in Hostelling International USA, we are delighted to offer a new, affordable family friendly, environmentally sustainable facility at the Seashore. What a fitting way to launch the 50th anniversary of Point Reyes National Seashore.”

The new building increases the Point Reyes Hostel’s ability to accommodate families visiting the Seashore by providing additional private guest rooms, as well as increased staff housing. Construction of the new facility incorporated a number of sustainable features and designs that comply with LEED green building standards.

LEED was developed by the U.S. Green Building Council and is an internationally-recognized green building certification system that measures and scores a building’s environmental performance in areas that include energy savings, water



Photos: (Top) Front view of the new LEED hostel building. (Bottom row L-R) Another view of the hostel with solar panel array; Hostelling International USA staff, premiere guests, and park Superintendent Cicely Muldoon during the ribbon cutting opening ceremony; a look at kitchen-dining area of the new building.

efficiency, greenhouse gas emissions reduction, sustainable materials and resources, improved indoor environmental quality, and sensitivity to other environmental impacts.

“We are excited to welcome guests who will interact and learn from one another,

while experiencing the many offers from the surrounding nature,” said Danielle Brumfitt, executive director of Hostelling International-USA Golden Gate Council. “With this addition we continue our commitment to world understanding and conservation through travel, and are proud of our partnership with Point Reyes National Seashore in doing so.”

Hostelling International USA, Golden Gate Council is the National Park Service concessioner managing the Point Reyes Hostel, and is celebrating forty years at Point Reyes in 2012.

For more info visit:
<http://norcalhostels.org/reyes/>

Sustainable Design features:

- FSC (Forest Stewardship Council) certified lumber
- Recycled cotton insulation
- 6.953 kW photovoltaic panel system
- High efficient LPG-fired hot water boiler
- Recycled glass countertops
- Cork and linoleum flooring
- Fiberglass windows
- Drought-resistant native plant landscaping

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LEED Intro

What is LEED? “LEED” developed by the U.S. Green Building Council, stands for “Leadership in Energy and Environmental Design.” It is an internationally-recognized green building certification system that measures and scores a building’s environmental performance in the following categories:

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality
- Innovation & Design
- Regional Priority

The Green Building Certification Institute (GBCI), established by the the U.S. Green Building Council, is an independent non-profit that administers the LEED Certification program and provdes LEED professional credentials to those who want basic to advanced knowledge of green design, construction, and operations.

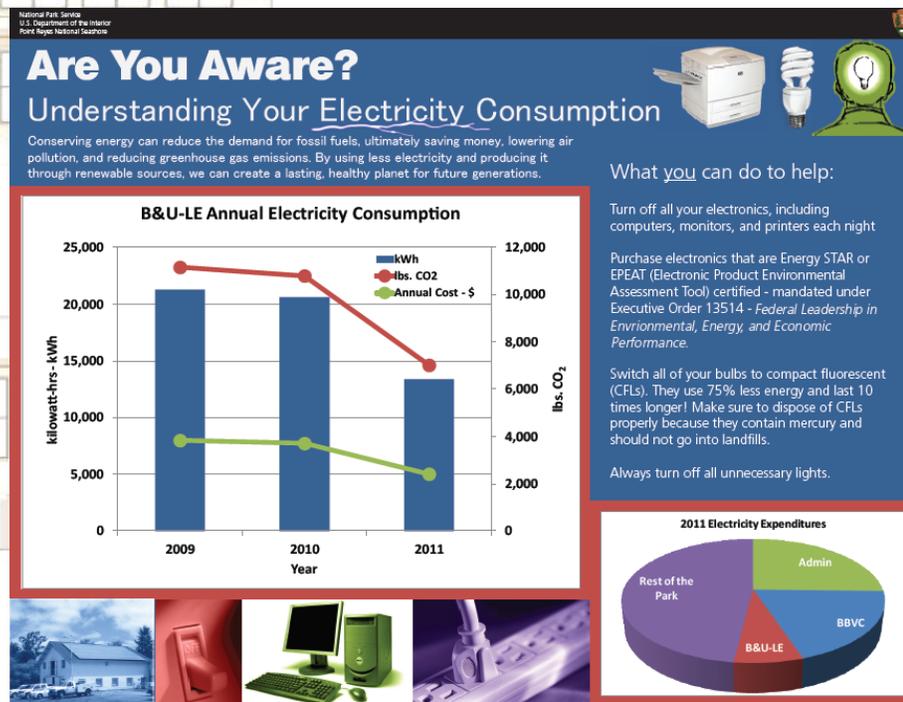
The LEED rating system is based on a 100-pt scale with four levels of qualification including Certified (40-49), Silver (50-59), Gold (60-79), and Platinum (80 and above). The rating system is continually being updated and is currently open for public comment for the 2012 revision until March 20.

Visit www.usgbc.org for more information.

Turning on Awareness

Sharing success stories and issues is a great way to raise awareness on sustainable practices and reducing impacts from climate change. Here at Point Reyes National Seashore, we have developed an energy awareness campaign through the park’s energy management program, participating in various Federal green initiatives and award programs to challenge and educate ourselves and the public in reducing our environmental footprint.

Last year the park earned an ENERGY STAR Certification award for the Administration building’s energy performance. The building performs in the top 25 percent of similar facilities in the nation for energy efficiency performance levels set by EPA. The building as earned this certification by changing all lighting to ENERGY STAR certified lighting, utilizing energy management computer software, installing skylights and a 10kW solar array, and posting building energy use to increase employee awareness.



(Above): Poster showing electricity consumption trend over the past three years for one of the park headquarter buildings.

This year Point Reyes is a participant of the Federal Green Challenge initiative pledging to reduce its energy demand by 5% this year.

In addition, posters (such as the one on the left) are posted in each building showing the electricity consumption trend over the past three years.

This is one of many resources that will hopefully tell a story of how are parks are adapting to environmental change and what we must do to protect resources for future generations.

For more information on the Point Reyes Energy Management program, contact Sara Hammond (415-464-5165) or Dale Dualan (415-464-5100 x5942)

How Solar Photovoltaic Panel Works

Here in Point Reyes National Seashore, we have 14 photovoltaic (PV) systems installed throughout the park providing about a third of the park's energy needs. In 2011, the PV systems altogether produced over 89,896 kWh (kilowatt-hours) offsetting over 23 tons of carbon dioxide. Here is a brief overview of how a grid-tied solar photovoltaic panel works:



Sunlight hits the PV system knocking electrons loose = photoelectric effect

The electrons form a DC (direct current) through a positive-negative circuit.

An inverter converts that DC to AC (alternating current), then to a distribution panel. The electricity can then be used in the building.

PV systems consist of many “modules” (used interchangeably with “panels”) which are made up of many individual PV cells. The cells have two layers, a negative (bottom) and a positive (top) which makes an electric field, just like a battery! When electrons are freed from the photoelectric effect, they flow from the positive layer to the negative layer, creating an electric current. Since we don't get much power out of one cell, we line them up into a module, and many of these modules are wired in circuits to form the entire photovoltaic system! For a grid-tied system, if the PV output is greater than your electrical demand, this energy is sold back to the utility company.

For more information on our PV systems contact Sara Hammond (sara_hammond@nps.gov)

Upcoming Dates & Events

- March 5 – Federal Green Challenge webinar – Baselines & Goal Setting to register: <https://www1.gotomeeting.com/register/452565681>
- March 13 – Federal Green Challenge webinar – Overview to register: <https://www1.gotomeeting.com/register/496504641>
- March 20 – 9th Annual Water Conservation Showcase, hosted by U.S. Green Building Council-Northern California Chapter, EBMUD, PG&E (San Francisco, CA)
- March 31 – Earth Hour (more info: <http://www.earthhour.org/>)
- April 22 – Earth Day

Monthly Challenge

Skip the wall outlet and go out and see some wilderness!



Photo by Tim Bernot



Have any questions or comments or a story or topic you'd like to suggest or contribute? Feel free to contact Dale Dualan at 415-464-5100 x5942 (email: DaleDualan@partner.nps.gov) or Sara Hammond at 415-464-5165 (email: Sara_Hammond@nps.gov)